

**Amendments to the Drawings**

Please replace the drawing sheets containing Figs. 1, 4 and 5 with the replacement drawing sheets appended to this response.

## Remarks

Claims 1-60 remain pending in the application and currently stand rejected. Claims 1, 21 and 41 are amended herein. Claims 2, 3, 22, 23, 42 and 43 are canceled. The Assignee respectfully traverses the rejections and requests allowance of claims 1-60.

## Amendments to the Specification

Generally, various paragraphs and a table of the specification have been amended to remove references to customer premises 610 and 620, which do not appear in the drawings. Also, the reference numeral for the market hub/head end of Fig. 1 has been changed from 520 to 501 in order to avoid conflict with the downstream manager 520 of Fig. 5. In addition, references to links 113 and 114 have been replaced with link 116 to correctly correspond with Fig. 1. References to link 124 have been eliminated, as no such link appears in Fig. 1. Also, any references to head end 510 have been removed, as that device does not appear in the drawings. Some language has also been added to the specification to refer to the sectors 161-170, as well as the link 131 coupling the head end 500 with the base antenna 160, as shown in Fig. 1.

Some new paragraphs have been added to the specification to properly refer to various elements of Figs. 3-5 that were previously left unnoted. More specifically, references now appear in the specification to the regional domain name server (DNS) 365 and its associated link 313 of Fig. 3; the market DNS 465, alarm system 470, interface 475, file transfer protocol (FTP) test server 480, and Remote Monitor (RMON) probe 495, along with associated links 413-415, 419 and 421, of Fig. 4; and the DNS 591, alarm system 592, asynchronous ports 593, interface 594 and monitor system 596, in addition to the channel combiner 536 and corresponding link 562 of Fig. 5.

The paragraph beginning at page 15, line 15, is also amended to eliminate a typographical error involving the word “similar.”

## Claim Amendments

Claim 1 is amended to provide that an instruction is received into the probe device “through a wireless broadband router coupled with the broadband wireless system.” Further, the claim now indicates that “the probe device and the wireless broadband router are located on a

customer premises.” These amendments are supported in the specification at Fig. 8 and page 29, line 16, to page 30, line 8. Claims 21 and 41 are similarly amended.

Due to the amendments to independent claims 1, 21 and 41, claims 2, 3, 22, 23, 42 and 43, which contain broader provisions than their associated independent claims in terms of the location of the probe device, are canceled herein.

#### Amendments to the Drawings

Fig. 1 is amended to change the reference numeral 520 to 501 to alleviate a conflict with reference numeral 520 in Fig. 5.

Fig. 4 is amended to change the reference numeral associated with the link coupling the interface 475 and the switch 425 from 418 to 415, as reference numeral 418 is employed for the link between the satellite receiver 460 and the contention server 455.

Fig. 5 is amended to change the reference numeral associated with the base antenna from 160 to 540 to properly align with the corresponding language of the specification.

Each of the drawing amendments is reflected in a corresponding replacement drawing sheet attached to this Response.

#### Claim Rejections Under 35 U.S.C. § 103

Claim 1-8, 15-18, 21-28, 35-38, 41-48 and 55-58 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,829,642 to Giroir et al. (hereinafter “Giroir”) in view of U.S. Patent No. 6,807,515 to Vogel et al. (herinafter “Vogel”). (Page 2 of the Office action.) Also, claims 9-12, 19, 20, 29-32, 39, 40, 49-52, 59 and 60 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Giroir in view of Vogel and U.S. Patent No. 6,061,722 to Lipa et al. (hereinafter “Lipa”). (Page 6 of the Office action.) Finally, claims 13, 14, 33, 34, 53 and 54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Giroir in view of Vogel and U.S. Patent No. 6,553,568 to Fijolek et al. (hereinafter “Fijolek”). (Page 9 of the Office action.) The Assignee respectfully traverses the rejection in light of the current amendments to claims 1, 21 and 41, and the following discussion.

Amended claim 1 provides a method of operating a probe device for testing a broadband wireless system, the method including, in part, the operation of “receiving an instruction into the probe device *through a wireless broadband router coupled with the broadband wireless system*

to execute a plurality of tests, *wherein the probe device and the wireless broadband router are located on a customer premises....*” (Emphasis supplied.) Amended claims 21 and 41 provide similar limitations. The Assignee contends that neither of these amended provisions is taught or suggested in the references cited in the most recent Office action.

Generally, Giroir discloses “a method and system of selecting a server from a plurality of servers for accessing Systems Network Architecture (SNA) applications from a client in an Internet Protocol (IP) network.” (Abstract.) In normal operation, a TN3270 Client 601 program executes within an end-user workstation (Fig. 4; column 8, lines 57-60) in order to allow the user access to an SNA application via a TN3270 server (Fig. 6; column 9, lines 47-63). On the other hand, probe software executing on a probe client *simulates* a user client “by requesting a connection to an SNA Application through a target TN3270 Server....” (Column 10, lines 42-44.) Fig. 7 depicts the connections between the *probe* client 702 of a Distributed Measurement System 701, a TN3270 server 704, and an SNA application 706 employed to perform the testing. (Column 10, lines 17-31.)

More specifically, Giroir employs an “Availability and Response Time Probe ... to gather measurements on the availability and response time of TN3270 Servers.” (Column 10, lines 17-19.) “[T]he Probe mechanism: (a) connects to SNA applications through each TN3270 Server; (b) measures associated response time; and also (c) detects TN3270 Servers failures and the degradation of the response time.” (Column 10, lines 59-64. See also Fig. 8, and column 10, line 65, to column 11, line 37.) An Autoserver code indicating the best TN3270 server for a user client to employ for a particular application is then created within the Autoserver URL system based on the results of the tests. (Fig. 12 and column 12, line 64, to column 13, line 9.) The user client connects to the Autoserver URL system upon start-up to determine the optimum server for accessing a particular application. (Fig. 5 and column 9, lines 16-26. See also column 7, lines 5-8, and column 14, lines 4-8.)

Fig. 10 provides another view of client probes 1010 within a distributed measurement system 1009 of an IP network 1005. Connected to the network outside of the distributed measurement system 1009 are multiple groups of clients 1001-1004. While the probes execute within probe clients of a distributed measurement system located close to the group of end users running the client program (column 12, lines 3-10), Giroir does not teach or suggest, and in fact, teaches away from, placing the probe clients 1010 on a customer premises, as the distributed

measurement systems 1009 are shown within the IP network 1005 of Fig. 10, unlike the user clients 1001-1004. Also, Giroir makes no mention of wireless broadband routers, as provided for in claims 1, 21 and 41.

Generally, Vogel describes a system and method for monitoring wireless network performance. (Abstract.) As shown in Fig. 1, a probe server 104 receives monitoring parameters via a user interface 102. (Column 3, lines 24 and 25.) In response, the probe server 104 or an associated “post” 108 sends “probes” through a wireless network 110. (Column 3, lines 25-28.) The probes are typically messages sent through the wireless network 110 which cause the network 110 to respond with feedback information. (Column 7, lines 30-45; column 4, lines 4 and 5.)

Vogel indicates that “[t]he physical location of the post 108 is chosen to be an area where wireless communication with the wireless network 110 is known to function well” and “so that the post may monitor a desired area.” (Column 7, lines 6-12.) However, Vogel does not teach or suggest that the post 108 be located on a customer premises, as set forth in claims 1, 21 and 41 of the present application. Instead, in Fig. 1 the probe server 104 and the posts 108 are shown separately from the wireless network 110 being monitored, and no mention of a customer premises is made at all. Also, Vogel does not mention routers, much less wireless broadband routers, as set forth in claims 1, 21 and 41.

Thus, for at least these reasons, the Assignee contends claims 1, 21 and 41 are allowable, and such indication is respectfully requested.

Further, as claims 4-20 depend from independent claim 1, claims 24-40 depend from independent claim 21, and claims 44-60 depend from independent claim 41, each of these sets of claims incorporates the limitations of its corresponding independent claims. Therefore, the Assignee contends that claims 4-20, 24-40 and 44-60 are allowable for at least the reasons provided above regarding claims 1, 21 and 41, and such indication is respectfully requested.

As claims 2, 3, 22, 23, 42 and 43 are canceled herein, the rejections as they pertain to those claims are rendered moot.

More specifically regarding claims 6-8, 26-28 and 46-48, which provide for one of the tests being a bulk file transfer test, the Office action states that “Giroir teaches the method of claim 1, wherein one of the plurality of tests comprises a bulk file transfer test.” (Page 5 of the Office action.) The Assignee disagrees with the allegation. Giroir only discusses testing of

server availability and response time by way of receiving an Application Welcome Screen as a result of requesting an SNA Application. (Fig. 7 and column 10, lines 20-30.) Thus, the probes of Giroir are not involved in bulk file transfers, much less using such transfers for testing purposes. Thus, the Assignee asserts that claims 6-8, 26-28 and 46-48 are allowable for at least this additional reason, and such indication is respectfully requested.

As to claims 18, 38 and 58, which further provide for the performance information including download speed, the Office action indicates that Giroir teaches such information. (Page 5 of the Office action.) The Assignee respectfully disagrees. Again, Giroir only teaches availability and response times of the connections with TN3270 servers, and does not teach or suggest testing or measuring download speed. Thus, the Assignee contends that claims 18, 38 and 58 are allowable for at least this additional reason, and such indication is respectfully requested.

Additionally with respect to claims 12, 32 and 52, the Office action indicates that Lipa teaches forward error correction testing. (Page 7 of the Office action.) The Assignee respectfully disagrees. Lipa appears to exclusively employ ping and reply packets for purposes of connection testing. (See column 6, line 57, to column 7, line 50; and column 8, line 25, to column 9, line 16, for example.) Lipa makes no mention of forward error correction testing. Thus, the Assignee asserts that claims 12, 32 and 52 are allowable for at least this additional reason, and such indication is respectfully requested.

More specifically regarding claims 13, 33 and 53, which provide for the plurality of tests including an out of lock indicator test, the Office action indicates that Fijolek teaches such a test. (Page 9 of the Office action.) The Assignee respectfully disagrees with this assertion, as no mention is made of an out of lock indicator test. Also, as to claims 14, 34 and 54, which provide for an out of lock indicator test that determines the presence of a clean Quadrature Amplitude Modulation (QAM) signal, page 9 of the Office action indicates that Fijolek teaches such a determination. The Assignee respectfully disagrees. Fijolek mentions the use of QAM as a modulation method (column 8, lines 19-28), but testing for an out of lock indicator signal, or for the presence of a clean QAM signal, is not discussed. Thus, the Assignee contends that claims 13, 14, 33, 34, 53 and 54 are allowable for at least these additional reasons, and such indication is respectfully requested.

Given the foregoing discussion, the Assignee respectfully requests that the rejections of

claims 1-60 be withdrawn.

Conclusion

Based on the above remarks, the Assignee submits that claims 1-60 are allowable. Additional reasons in support of patentability exist, but such reasons are omitted in the interests of clarity and brevity. The Assignee thus respectfully requests allowance of claims 1-60.

The Assignee believes no additional fees are due with respect to this filing. However, should the Office determine additional fees are necessary, the Office is hereby authorized to charge Deposit Account No. 21-0765.

Respectfully submitted,

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